

## Certificate of Analysis

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**Product Name:** Locustatachykinin I

**Catalog No.:** 2690

**Batch No.:** 1

CAS Number: 126985-97-5

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>43</sub>H<sub>63</sub>N<sub>13</sub>O<sub>11</sub>  
**Batch Molecular Weight:** 938.05  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 75%  
**Counter Ion:** Trifluoroacetate  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:** Gly-Pro-Ser-Gly-Phe-Tyr-Gly-Val-Arg-NH<sub>2</sub>

### 2. ANALYTICAL DATA

**HPLC:** Shows >98.5% purity  
**Mass Spectrum:** Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala				Lys			
Arg	1.00	0.98	Met				
Asx			Phe	1.00	1.00		
Cys			Pro	1.00	1.03		
Glx			Ser	1.00	0.88		
Gly	3.00	3.04	Thr				
His			Trp				
Ile			Tyr	1.00	1.00		
Leu			Val	1.00	1.07		

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Tel: +1 612 379 2956

**Product Name:** Locustatachykinin I

**Catalog No.:** 2690

**Batch No.:** 1

CAS Number: 126985-97-5

**Description:**

Insect tachykinin-related peptide (TRP) isolated from *Locusta migratoria*. Exhibits sequence homology with vertebrate tachykinins.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>43</sub>H<sub>63</sub>N<sub>13</sub>O<sub>11</sub>

Batch Molecular Weight: 938.05

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Gly-Pro-Ser-Gly-Phe-Tyr-Gly-Val-Arg-NH<sub>2</sub>

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 1 mg/ml in water

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Net Peptide Content:** 75% (Remaining weight made up of counterions and residual water).

**Counter Ion:** Trifluoroacetate

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Isaac et al** (2002) Inactivation of a tachykinin-like peptide: identification of four neuropeptide-degrading enzymes in neuronal membranes of insects from four different orders. *Peptides* **23** 725. PMID: 11897392.

**Torfs et al** (2000) Characterization of a receptor for insect tachykinin-like peptide agonists by functional expression in a stable *Drosophila* Schneider 2 cell line. *J. Neurochem.* **74** 2182. PMID: 10800964.

**Schoofs et al** (1990) Locustatachykinin I and II, two novel insect neuropeptides with homology to peptides of the vertebrate tachykinin family. *FEB Lett.* **261** 397.

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